CHAPTER XII.

HEALTH.

COMPARED with the neighbouring districts of Belgaum and Dhárwár, Kánara is unhealthy. In spite of an average rainfall of 130 inches the coast sub-divisions are more healthy than the forest-covered uplands. Of the feverish inland tracts the valleys of the Kálinadi and its tributaries are perhaps the most unhealthy. Throughout the district, especially above the Sahyádris, the two most unhealthy seasons of the year are June and July the first two rainy months, and the four cool months from November to February.

Fevers.

The most prevalent disease is remittent and intermittent fever. In 1801 Buchanan noticed that about 1750, and again in 1800, many people had died of fever in North Kánara. It was like ordinary fever for three days, then the patient became delirious, and died on the fifth day.[1] About 1830 fever prevailed to some extent in the uplands; but from 1835 to 1860 the forest-covered uplands were healthy at all times of the year, and fever was as little known as in Belgaum or Dhárwár.[2] For about eight years between 1860 and 1867 Kánara suffered severely from an outbreak of fever. The people believed that the fever was due to the flowering of the bamboos which takes place about once in fifty years. According to the Sanitary Commissioner, Dr. Leith, who was deputed by the Bombay Government to investigate the outbreak, the fever was sometimes remittent, but mostly intermittent of the usual daily, third day, and fourth day types.[3] Many of the hospital admissions were relapse cases, almost all with enlargement of the spleen. In some cases where there had been little or no fever, there was swelling of the spleen, and in several cases of children the swelling was enormous. In protracted cases there was great want of blood and often dropsy. The fever was occasionally complicated with diarrhœa. In all these points the disease resembled the usual malarious intermittent fever. The fever attacks were readily checked by treatment, but there was a great tendency to relapse, which was natural so long as the person continued in the malarious locality. The outbreak began in 1860. It abated in 1861; but in 1862 again increased in severity. The epidemic spread over the whole district; the only places free or little affected were Tadri,

[1] Buchanan's Mysore, III. 108.
[2] Colonel Anderson's Survey Report, 154 of 3rd February 1872, para. 8.
[3] Dr. Leith's Topographical and Sanitary Report on North Kánara, 10th February 1863.

Chapter XII. Health.

Fevers.

Kumta, Honávar, and Bhatkal on the sea-coast. In the uplands no place escaped the disease and it was nearly equally severe over all the sub-divisions. From the cases that came under his observation Dr. Leith found that on the micaceous schists and quartz-bearing *ain* or Terminalia tomentosa forest, the ratio of sick was 29·6; that on trap rock or argillaceous schist bearing *ságván* or teak forest, it was 14·9; and that on the laterite near the Sahyádris, covered with *kárvi* or Strobilanthus, it was 33·7. The circumstances most favourable to the production of fever were dense forest, narrow valleys, ravines, and swampy rice-land. In 1664 the effects of the outbreak of fever were so severe that in the uplands many villages and towns were desolate. At Sirsi the fever hindered the transaction of business, and several native merchants who had lived there for years left the place to escape the sickness. At Sirsi the fever was accompanied by cholera. At Haliyál the fever raged so violently that the town was almost deserted.[1] Few people were seen in the streets, and those few, in nine cases out of ten, were gaunt and hollow-eyed. Fifty to a hundred houses were entirely deserted, the people either dead or fled. Handsome new houses were falling to decay before they had been inhabited or even finished. Scarcely a house but had its sick and dying. The outbreak lasted for eight years, the fever relaxing only during the hot months.[2] The meat-eating classes suffered less than the rest. In connection with this outbreak it is worthy of note that apart from the statistics of disease there is a general belief among the intelligent people of the district that outbreaks of small-pox, cholera, and fever occur periodically and in order.[3] After an outbreak of fever, though ordinary fever is always prevalent, there is generally a lull of two or three years. Before 1860 small-pox raged furiously in many parts of the district. It was followed by cholera, and, while cholera continued, small-pox almost disappeared. Shortly after cholera died away and fever of the worst type broke out. After the fever had spent itself there was a lull for some years and then small-pox appeared and was fatal between 1872 and 1874. For two years more small-pox continued though with less severity, till, in 1876-77, in the train of famine cholera broke out and small-pox disappeared. In 1878 cholera gave place to violent fever, which has since continued more than usually fatal though much less fatal than in 1878.[4]

Hospitals, 1882.

In 1882, there was one civil hospital, and seven grant-in-aid and one Government dispensaries. The number of patients treated was 34,692, of whom 33,803 were out-door and 889 in-door patients; the cost was £2198 (Rs. 21,980). The following details are taken from the 1882 reports:

Kárwár.

The Kárwár civil hospital has a building of its own. The commonest diseases are malarious fevers, syphilis, affections of the breathing system, bowel complaints, spleen, and skin diseases. In 1882 there was no epidemic disease. Eleven major operations and

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[1] The Police Superintendent Mr. Campbell's diary, 17th January 1864.
[2] Colonel Anderson's Survey Report, 154 of 3rd February 1872, paras. 8, 12.
[3] Mr. A. R. Macdonald, C.S. [4] Compare the Death Returns at p. 222.

six after-death examinations were made, and fifty-four primary and eight re-vaccinations were performed. 5583 out-door and 375 in-door patients were treated at a cost of £862 10*s.* (Rs. 8625).

Hospitals, 1882.

The Kumta dispensary was opened in 1867 by the municipality, and has a good building of its own. The commonest diseases are malarious fevers, worms, skin diseases, affections of the breathing system, rheumatism, and syphilis. There was a mild epidemic of small-pox in April May and June, in which of fifteen cases two proved fatal. There were thirty-eight major operations and 298 successful vaccinations. 6010 out-door and 136 in-door patients were treated at a cost of £404 (Rs. 4040). *Kumta.*

The Honávar dispensary is in a portion of the old sub-judge's court-house. The prevailing diseases are malarious fever, rheumatism, affections of the breathing system, bowel complaints, and skin diseases. There was no epidemic. The number of children vaccinated was seventy-six. 3489 out-door and forty-four in-door patients were treated at a cost of £72 8*s.* (Rs. 724). *Honávar.*

The Supa dispensary was established in 1866. It has a building of its own, and is supported from local funds. The prevailing diseases are malarious fevers, skin diseases, and bowel complaints. In 1882 there was no epidemic. Only sixteen children were vaccinated. 1859 out-door and thirty-six in-door patients were treated at a cost of £104 14*s.* (Rs. 1047). *Supa.*

The Haliyál dispensary was opened in 1865, and has a building of its own. It is supported by the municipality. The commonest diseases are malarious fevers, affections of the breathing system, bowel complaints, and skin diseases. 128 children were vaccinated, and 3372 out-door and twenty-one in-door patients were treated at a cost of £96 8*s.* (Rs. 964). *Haliyál.*

The Yellápur dispensary was opened in 1863, and is supported from local funds. It has a building of its own. The prevailing diseases are malarious fevers, bowel complaints, and skin diseases. Twenty-two persons were vaccinated and 2441 out-door and ninety-two in-door patients were treated at a cost of £157 4*s* (Rs. 1572). *Yellápur.*

The Sirsi dispensary is supported by the municipality. It is held in a building of its own. The commonest diseases are malarious fevers, worms, skin diseases, syphilis, and bowel complaints. In 1882 there was no epidemic. Seventy-two children were vaccinated, and 6523 out-door and seventy-nine in-door patients were treated at a cost of £311 14*s.* (Rs. 3117). *Sirsi.*

The Siddápur dispensary was opened in 1873, and is supported from local funds. It has a building of its own. The commonest diseases are malarious fevers, intestinal worms, skin diseases, affections of the breathing system, and rheumatism. 2336 out-door and forty-four in-door patients were treated at a cost of £110 10*s.* (Rs. 1105). *Siddápur.*

The Mundgod Government dispensary was established in 1864. It has a building of its own. The chief diseases are malarious fevers, rheumatism, syphilis, and affections of the breathing system, bowel complaints, intestinal worms, ulcers, and skin diseases. *Mundgod.*

Chapter XII. Health.

There was no epidemic. 2190 out-door and sixty-two in-door patients were treated at a cost of £78 12*s.* (Rs. 786).

Infirm People.

According to the 1881 census 831 persons (males 464, females 367) or 0·19 per cent of the population were infirm. Of the total number, 741 (males 420, females 321) were Hindus, 58 (males 29, females 29) Musalmáns, and 32 (males 15, females 17) Christians. Of 831, the total number of infirm persons, 98 (males 66, females 32) or 11·79 per cent were of unsound mind, 320 (males 155, females 165) or 38·50 per cent were blind, 359 (males 207, females 152) or 43·20 per cent were deaf and dumb, and 54 (males 36, females 18) or 6·49 per cent were lepers. The details are:

Kánara Infirm People, 1881.

Class.	Hindus.		Musalma'ns.		Christians.		Total.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Insane	62	31	3	1	1	...	66	32
Blind	136	142	9	12	10	11	155	165
Deaf-mute	188	131	16	16	3	5	207	152
Lepers	34	17	1	...	1	1	36	18
Total ...	420	321	29	29	15	17	464	367

Vaccination.

In 1882-83, under the supervision of the deputy sanitary commissioner, the work of vaccination was carried on by twelve vaccinators with yearly salaries varying from £16 16*s.* to £28 16*s.* (Rs. 168 - Rs. 288). They were distributed over the rural parts of the district. Besides the vaccinators the medical officers of nine dispensaries carried on vaccine operations. The total number of persons vaccinated was 12,034, besides 632 re-vaccinated compared with 6579 primary vaccinations in 1869-70.

The following statement shows the sex, religion, and age of the persons primarily vaccinated:

Kánara Vaccination Details, 1869-70 and 1882-83.

Year.	Persons Vaccinated.									
	Sex.		Religion.					Age.		Total.
	Males.	Females.	Hindus.	Musalmáns.	Pársis.	Christians.	Others.	Under one year.	Above one year.	
1869-70 ...	3749	2830	5457	394	...	394	334	680	5899	6579
1882-83 ...	6368	5666	9985	805	...	640	604	2402	9632	12,034

In 1882-83, the total cost of these operations, exclusive of those performed in dispensaries, was £682 8*s.* (Rs. 6824) or about 1*s.* 3½*d.* (10⅓ *as.*) for each successful case. The charges included the following items: Supervision and inspection, £322 4*s.* (Rs. 3222); establishment, £348 18*s.* (Rs. 3489); and contingencies £11 6*s.* (Rs. 143). Of these the supervising and inspecting charges were met from Government provincial funds, while £360 4*s.* (Rs. 3602) were borne by the local funds of the different sub-divisions.

Chapter XII. Health.

Cattle Disease.

Three forms of cattle disease are known in the district[1]: *lágrog* or foot-disease, *maháro*g or great disease, and *chendurog* or throat-disease. The *lágrog* or foot-disease is generally first visible in the lower part of the feet, which decays if care be not taken. Sores are found in the feet between the toes, and sometimes one of the hoofs falls off, and large maggots are frequently found in the sores. This foot-disease is accompanied with ulcers in the mouth, and the whole body is sometimes affected with sores. In ordinary attacks the animal lives for a week or two. The disease which is called *maháro*g or great disease is usually accompanied with diarrhœa or watery purging and for a day or two spittle flows from the animal's mouth. The stomach dries and the animal becomes very thin. The disease lasts a fortnight or three weeks, and is generally fatal. In the disease known as *chendurog* or throat-disease the animal's neck swells; it appears in much distress and refuses food and water. The disease lasts six or seven days and ends fatally unless strong remedies are taken.

Births and Deaths.

The total number of deaths shown in the Sanitary Commissioner's yearly reports, for the seventeen years ending 1882, is 195,259 or an average mortality of 11,486, or, according to the 1881 census, of twenty-seven per thousand of the population. Of the average number of deaths 6606 or 57·51 per cent were returned as due to fevers, 317 or 2·76 per cent to cholera, 237 or 2·06 per cent to small-pox, 950 or 8·13 per cent to bowel complaints, and 3157 or 27·49 per cent to miscellaneous diseases. Deaths from violence or injuries averaged 219 or 1·90 per cent of the average mortality. During the twelve years ending 1882 the number of births was returned at 138,096, or an average yearly birth rate of 11,508, or, according to the 1881 census, twenty-seven per thousand. An examination of the returns shows that fever which during the seventeen years caused an average yearly mortality of 6606 or 57·51 per cent was below the average in twelve years and above the average in the five years ending 1881. Three years, 1866, 1868, and 1873, had less than 5000 deaths, the lowest total being 4825 in 1873; six years, 1867, 1869, 1870, 1871, 1872, and 1874, had between 5000 and 6000 deaths; and three years, 1875, 1476, and 1882, between 6000 and 7000 deaths. Of the five years above the average 1880 had 7181 deaths, 1881 had 7244, 1879 had 8867, 1877 had 10,662, and 1878, the year of excessive rainfall (132·89 inches), 11,542. Of the deaths from cholera, which amounted to 5390 and averaged 317, 2804 or 52·02 per cent happened in 1877. The only other years which were over the average were, 1876 with 929 deaths, 1866 with 859, and 1869 with 531. In none of the other years were there more than 100 deaths and seven years, 1871, 1872, 1873, 1874, 1879, 1880, and 1882, were free from cholera. Of the deaths from small-pox, which amounted to 4021 and averaged 237, 1170 or 29·09 per cent happened in 1872. Besides 1872 five years had a more than average mortality from small-pox, 1871 with 702, 1877 with 473, 1873 with 432, 1870 with 329, and 1874 with 284. Six years had

[1] Collector's Letter 2316 of 5th September 1870.

Chapter XII. Health.

Births and Deaths.

less than a hundred, 1867, 1868, 1869, 1876, 1878, and 1882, and three years had less then ten, 1879 with eight, and 1880 and 1881 with one each. Of the deaths from bowel complaints, which amounted to 16,160 or 950 a year, eleven years were below the average, and six, the six years ending 1879, were above the average. The smallest number of deaths from bowel complaints in any one of the seventeen years was 547 in 1867 and the largest was 2345 in 1877. Injuries, with a total mortality of 3723 and an average of 219, varied from 169 in 1869 to 304 in 1866. Other causes with a total mortality of 53,670 and an average mortality of 3157 varied from 5015 in 1877 to 1350 in 1866.

Birth returns are available only for the twelve years ending 1882. During those twelve years the number of births averaged 11,508. The yearly totals vary from a lowest of 8057 in 1878 to a highest of 13,264 in 1881. The details are[1]:

Kánara Births and Deaths, 1866-1882.

Year.	Deaths.							Births.
	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries	Other Causes.	Total.	
1866	859	126	4956	560	304	1350	8155	...
1867	74	45	5679	547	183	1623	8151	...
1868	66	77	4899	647	197	1778	7664	...
1869	531	89	5134	650	169	2585	9158	...
1870	4	320	5250	587	178	2861	9209	...
1871	...	702	5868	680	216	2874	10,340	10,297
1872	...	1170	5263	809	199	3006	10,452	11,408
1873	...	432	4825	852	239	3720	10,068	12,307
1874	...	284	5934	1057	185	3393	10,853	12,547
1875	47	137	6265	1254	221	3414	11,338	11,677
1876	929	23	6452	1196	221	3882	12,708	11,728
1877	2304	473	10,662	2345	262	5015	21,561	11,731
1878	74	68	11,542	1501	291	3766	17,242	8057
1879	...	8	8867	1062	194	3504	13,635	9582
1880	...	1	7131	854	200	3635	11,871	12,873
1881	2	1	7244	808	225	3771	12,051	13,264
1882	...	51	6269	751	239	3493	10,803	12,625
Total ...	5390	4021	112,295	16,160	3723	53,670	195,259	138,006
Average	317	237	6606	950	219	3157	11,486	11,508

[1] These figures are of doubtful accuracy.